PENDING CLAIMS AND STATUS THEREOF

1. (original): A super-regenerative receiver, comprising:

a quenchable oscillator, said quenchable oscillator having a tuned circuit approximately resonant at a frequency of a desired signal and a signal output;

a quench circuit having a control input with first and second logic states, said quench circuit being coupled to the tuned circuit of said quenchable oscillator when the control input is in the first logic state, and said quench circuit being decoupled from the tuned circuit of said quenchable oscillator when the control input is in the second logic state; and

a signal detection circuit, said signal detection circuit having an input coupled to the signal output of said quenchable oscillator and a control output coupled to the control input of said quench circuit, wherein if a signal level from the signal output is greater than a certain value then the control output of said signal detection circuit is at the first logic level and if the signal level from the signal output is equal to or less than the certain value then the control output of said signal detection circuit is at the second logic level.

2. (original): The super-regenerative receiver of claim 1, wherein the tuned circuit is used as an antenna for reception of the desired signal.

3. (original): The super-regenerative receiver of claim 1, wherein an antenna for reception of the desired signal is coupled to said quenchable oscillator.

4. (original): The super-regenerative receiver of claim 1, further comprising an amplifier having radio frequency selectivity, said amplifier coupled to said quenchable oscillator.

5. (original): The super-regenerative receiver of claim 4, wherein the radio frequency selectivity of said amplifier is used as an antenna for reception of the desired signal.

6. (original): The super-regenerative receiver of claim 4, wherein said amplifier is coupled to an antenna for reception of the desired signal.

7. (original): The super-regenerative receiver of claim 1, wherein said quenchable oscillator is a Colpitts oscillator circuit.

8. (original): The super-regenerative receiver of claim 1, wherein said quench circuit is a resistor in series with a switch.

9. (original): The super-regenerative receiver of claim 8, wherein the switch is a transistor coupled between a radio frequency ground and the resistor.

10. (original): The super-regenerative receiver of claim 1, wherein said signal detection circuit is an operational amplifier having a first input coupled to the signal output of said quenchable oscillator and a second input coupled to a voltage reference of the certain value.

11. (original): The super-regenerative receiver of claim 1, wherein said signal detection circuit is a comparator having a first input coupled to the signal output of said quenchable oscillator and a second input coupled to a voltage reference of the certain value.

12. (original): The super-regenerative receiver of claim 1, wherein said quenchable oscillator has a direct current (DC) bias point that is fixed.

13. (original): The super-regenerative receiver of claim 1, wherein the control input is delayed when going from the first logic state to the second logic state.

14. **(currently amended):** The super-regenerative receiver of claim **[[1]]** **17**, wherein said quench oscillator, said quench circuit, said signal detection circuit and said digital processor are fabricated on at least one integrated circuit die.

15. (original): The super-regenerative receiver of claim 14, further comprising packaging said at least one integrated circuit die in an integrated circuit package.

16. **(currently amended):** The super-regenerative receiver of claim 15, wherein the integrated circuit package is selected from the group consisting of **plastic dual in-line package (PDIP), small outline integrated circuit (SOIC), mini small outline package (MSOP), thin shrink small outline package (TSSOP), and quarter size outline package (QSOP)** ~~**PDIP, SOIC, MSOP, TSSOP, and QSOP**~~.

17. **(currently amended):** The super-regenerative receiver of claim 1, further comprising a **digital processor** ~~**circuit**~~ for digitally controlling the quench circuit.

18. (original): The super-regenerative receiver of claim 1, wherein the digitally controlled quench circuit is used to demodulate an amplitude modulated signal.

19. (original): The super-regenerative receiver of claim 1, wherein the control input is delayed when going from the second logic state to the first logic state.

20. **(currently amended):** The super-regenerative receiver of claim 1, wherein **[[Q]]** **a quality factor (Q)** of the tuned circuit is substantially constant.

21. (original): The super-regenerative receiver of claim 1, wherein the quenchable oscillator has substantially fixed bias.

22. **(currently amended):** The super-regenerative receiver of claim 1, wherein **[[Q]]** **a quality factor (Q)** of the tuned circuit is substantially linear for substantially all received signal strengths.

23. (original): A method for receiving a signal with a super-regenerative receiver, said method comprising the steps of:

providing a quenchable oscillator having a tuned circuit approximately resonant at a frequency of a desired signal and a signal output of the quenchable oscillator;

providing a quench circuit for quenching oscillations of the quenchable oscillator;

detecting a signal level from the quenchable oscillator wherein

if the detected signal level is greater than a certain value then coupling the quench circuit to the tuned circuit of the quenchable oscillator, and

if the detected signal level is less than or equal to the certain value then decoupling the quench circuit from the tuned circuit of the quenchable oscillator.

24. (original): The method of claim 23, further comprising the step of delaying decoupling of the quench circuit from the tuned circuit of the quenchable oscillator.

25. (original): The method of claim 23, further comprising the step of fine tuning the tuned circuit to the frequency of the desired signal.

26. (original): The method of claim 23, further comprising the step of fabricating on an integrated circuit the quenchable oscillator, the quench circuit and a circuit for detecting the signal level.

27. (original): The method of claim 23, further comprising the step of digitally controlling the quench circuit for detecting an amplitude modulated signal.

28. **(currently amended):** The method of claim 23, wherein **[[Q]]** **a quality factor (Q)** of the tuned circuit is substantially constant.

29. (original): The method of claim 23, wherein the quenchable oscillator has substantially fixed bias.

30. **(currently amended):** The method of claim 23, wherein **[[Q]]** **a quality factor (Q)** of the tuned circuit is substantially linear for substantially all received signal strengths.